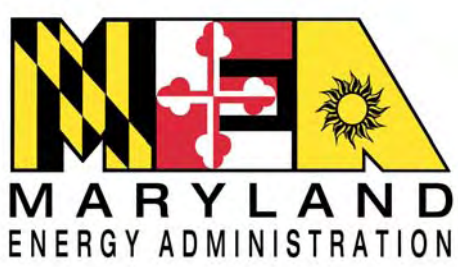
Energy Solutions for Local Governments



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Energy Solutions for Local Governments

Overview: Why does energy matter?

Energy prices are rising and consuming a larger portion of local governments' budgets. Increasing energy efficiency can significantly reduce energy costs and reduce the environmental impact of energy generation. Further, sound energy policy and the utilization of renewable energy can demonstrate your community's commitment to protecting the Chesapeake Bay and creating a cleaner Maryland.

MEA developed this brochure to help you identify opportunities for greater energy efficiency, consider the use of renewable energy, and secure the necessary funding to make improvements.

Energy Options for Local Governments

Community Energy Loan Program (CELP)

MEA operates the Community Energy Loan Program (CELP) to provide Maryland local governments and nonprofit organizations with financial assistance to reduce operating costs with energy efficiency improvements. CELP allows energy savings generated by these improvements to be the major source of loan repayment.

All costs required to produce the energy efficiency improvements can be eligible for funding, including technical assessment, reasonable special service fees, plans and specifications, and actual construction costs. The program is open continuously throughout the fiscal year to accept applications, and CELP staff is available to work with applicants in completing the application forms and explaining program requirements. Currently, CELP funds approximately $1.5 million in new projects each fiscal year.

Up to 40 percent of each year's CELP allocation, or approximately $400,000, is available per loan. Applications are reviewed and ranked to achieve the best distribution of funds throughout the State and among the eligible organizations. Each loan is negotiated separately and the applicant is required to provide a match of at least 10 percent. The interest rate is negotiated on an individual loan basis and is guaranteed to be below market rate. **The current average interest rate is approximately 3.0 percent.**

Repayment begins in the second year of the loan. The first year is deferred to allow completion of the project and to begin to realize savings. For more information contact David Cronin at 1-800-72-ENERGY or dcronin@energy.state.md.us.

Solar Energy

MEA operates a number of solar energy programs that are available to local governments.

Through the Maryland Solar Schools Program, MEA offers a limited number of grants to partially supplement the costs of a PV system for Maryland schools. MEA provides $4,000 towards the cost

of a minimum 1 kW grid-tied PV system. Schools must identify the fund source(s) for the remainder of project costs. Total costs range from $10,000 to $14,000.

The Maryland Solar Energy Grant Program can provide partial funding for solar photovoltaic or water heating projects. The maximum grant amounts are $5,000 or no more than 20 percent of total system cost for photovoltaic projects, and $2,000 or no more than 20 percent of total system cost for solar water heating projects. For more information about MEA's solar energy programs, please contact: Tim LaRonde at 1-800-72-ENERGY or tlaronde@energy.state.md.us.

Wind Energy

Local Government Purchases of Wind Energy

Montgomery and Prince George's Counties and 12 municipalities in Maryland have made significant commitments to renewable energy and wind power, specifically by purchasing wind power. These purchases are used to help the Washington Metropolitan region with their State Implementation Plan to achieve improved air quality in the region.

Wind Resources Assessment

The National Renewable Energy Laboratory (NREL) has completed an assessment and mapping of Maryland's wind resources. This map provides an overview of the State's wind resources and highlights areas that are more favorable to wind development. To request a CD ROM version of this map and GIS software contact the Susan Shipman of MEA at 1-800-72-ENERGY or sshipman@energy.state.md.us.

Small Wind

There are many areas in Maryland where small-scale wind turbines can provide cost-effective sources of electricity generation. Maryland currently has one small wind demonstration project on the Eastern Shore at the Eastern Neck Wildlife Refuge. Small wind turbines can be beneficial in agricultural and rural residential areas.

For more information on small wind systems see the Maryland Consumer's Guide for Small Wind Electric Systems: www.nrel.gov/docs/fy04osti/36411.pdf.

Other Renewable Energy Opportunities

Some local governments in Maryland have constructed renewable energy facilities in their districts. For instance, Prince George's County makes use of landfill gas at the Brown Station Landfill to provide heat, hot water, and electricity for the County Detention Center. At its Resource Recovery Center, Montgomery County burns municipal solid waste to generate electricity and steam.

MEA can provide information to local governments interested in similar renewable energy projects. For more information, contact Charles Miller at 1-800-72-ENERGY or cmiller@energy.state.md.us.

Rebuild America/Energy Smart Schools

Rebuild America is a network of hundreds of public-private partnerships across the nation that are saving energy, improving building performance, easing air pollution through reduced energy demand, and enhancing the quality of life through energy efficiency and renewable energy

technologies. The Maryland Energy Administration on behalf of the State of Maryland is a partner in Rebuild America. For more information about the national program, go to www.rebuild.org.

The Maryland Rebuild Partnership leverages resources through Rebuild America to complement the State's existing activities for green buildings and other energy-efficient programs, thus bringing valuable resources to the communities and local governments that need them most. The Partnership targets both privately and publicly held commercial and institutional buildings. Additionally, the Rebuild program has a program specifically intended to improve the energy efficiency of schools.

For more information, visit www.energy.state.md.us/programs/commercial/rebuildamerica.htm or contact Lauren Robbins at 1-800-72-ENERGY or lrobbins@energy.state.md.us.

Energy Performance Contracting

An Energy Performance Contract (EPC) is an agreement between a local government and an energy service company (ESCO) in which the ESCO identifies and evaluates energy-saving opportunities and recommends a package of improvements, which are paid for through the resulting savings. The ESCO guarantees that savings meet or exceed annual payments to cover all project costs—usually over a contract term of 7-15 years. If savings do not materialize, the ESCO pays the difference to the local government. To ensure savings, the ESCO offers staff training and long-term maintenance services as well as ongoing energy usage monitoring.

Because the ESCO pays for upfront capital costs, an EPC can allow a local government to implement energy-saving measures that may have otherwise been cost-prohibitive. For more information on EPCs please contact Michael Li at 1-800-72-ENERGY or mli@energy.state.md.us.

Green Building Program

Green buildings are built or rehabilitated in a manner that maximizes energy efficiency and minimizes environmental impacts. Green building design results in lower energy and resource costs and higher worker productivity.

The Maryland Energy Administration runs the Green Building Tax Credit program, which provides a six or eight percent tax credit for the construction of a green building. For more details visit: www.energy.maryland.gov/programs/commercial/greenbuilding/index.html or contact Michael Li at 1-800-72-ENERGY or mli@energy.state.md.us.

Alternative Fuel Vehicles (AFVs)

AFVs, which can run on non-gasoline fuel sources, can provide a number of benefits to local governments, such as helping to attain air quality goals. Local governments that purchase AFVs help reduce dependence on foreign-based fossil fuels and demonstrate a strong commitment to sound environmental policies. AFVs come in a variety of designs including dedicated fuel, dual-fuel, and flexible-fuel and can use a number of fuel types such as ethanol, biodiesel compressed natural gas, propane, and hydrogen.

MEA and the Federal government are working to help local governments utilize AFVs through financial and technical assistance. For example, MEA and the U.S. Department of Energy provided a $60,000 grant to Queen Anne's County to purchase biodiesel for their county fleet. MEA also provided a $5,500 grant to the City of Greenbelt for the purchase of a compressed natural gas refueling station.

Electricity Deregulation in Maryland

Electric utility restructuring (or deregulation) in Maryland was officially launched with the passage of "The Electric Customer Choice and Competition Act of 1999." In brief, the Act deregulates electricity generation, creates a competitive supply market, and provides customers with electricity choice. Electric choice is now available to most Maryland consumers. Investor-owned utilities opened to competition in 2000. The Southern Maryland Electric Cooperative and Choptank Electric Cooperative opened to choice in 2001.

If customers do not choose a supplier right away, they will continue to receive power from their electric company through what is called Standard Offer Service (SOS). SOS will come to an end between 2002 and 2012, depending on the local utility and whether the customer is categorized as residential or business. In most cases, municipalities are considered commercial or industrial customers, depending upon their quantity of electricity usage.

As the market for energy continues to develop, sound electricity procurement strategies could help local governments substantially reduce energy costs. For instance, several local governments can aggregate their energy requirements to achieve lower rates from suppliers. Aggregation can also help with other energy services, such as metering, energy audits and efficiency improvements, fuel switching, renewable energy, and bill monitoring.

What are Other Local Governments Doing?

Below is a small sampling of projects that local governments have undertaken recently to manage their electricity demand and increase their use of renewable energy:

• ***Electricity Load-Leveling:*** **Ocean City** has converted its ball-field lighting to off-peak rates and reduced its electricity costs.

• ***Electricity from Renewable Energy Sources***: Eleven municipalities joined **Montgomery County** in the largest purchase of wind energy by a local government in the nation.

• ***Comprehensive Municipal Energy Audit:*** The municipalities of **Rockville** and **Bowie** have carried out a comprehensive energy audit. Bowie had earlier purchased its streetlights from the local electricity distribution company.

• ***Installation of Municipal Geothermal Heat Pump System:*** **Greenbelt** has begun to install a geothermal heat pump system for heating and cooling its administrative building.

• ***Alternative Fuel Vehicles:*** The **City of Baltimore** recently purchased four dedicated compressed natural gas vehicles with financial assistance from MEA and the Maryland Department of Transportation. **Greenbelt** purchased two dedicated compressed natural gas vehicles with

assistance from MEA. **Worcester County** is converting its diesel vehicle fleet to run on biodiesel with assistance from MEA.

Your local government could be an example of innovation and efficiency, too. Call MEA at 1-800-72-ENERGY or visit www.energy.maryland.gov today!